

EPA Superfund Explanation of Significant Differences:

**JACKS CREEK/SITKIN SMELTING & REFINING, INC.
EPA ID: PAD980829493
OU 01
MAITLAND, PA
04/19/2001**

EXPLANATION OF SIGNIFICANT DIFFERENCE No.1
OPERABLE UNIT ONE
JACKS CREEK/SITKIN SMELTING & REFINING INC. SUPERFUND SITE

I. INTRODUCTION

Site Name: Jacks Creek Superfund Site

Site Location: Village of Maitland, Mifflin County, Pennsylvania

Lead Agency: U.S. Environmental Protection Agency, Region ("EPA" or "the Agency")

Support Agency: Pennsylvania Department of Environmental Protection ("PADEP")

A Record of Decision ("ROD") for the Jacks Creek Superfund Site ("Site") for Operable Unit One ("OU-1") was issued on September 30, 1997. This Explanation of Significant Differences ("ESD") No. 1 to the ROD is issued in accordance with Section 117 (c) of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, ("CERCLA"), 42 U.S.C. § 9617(c) and the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), Section 300.435 (c) (2)(i). This ESD significantly changes, but does not fundamentally alter, the remedy selected in the ROD with respect to scope, performance, or cost. This document will be incorporated into the Administrative Record maintained for this Site, as required by NCP Section 300.825 (a)(2).

In the original ROD, the United States Environmental Protection Agency ("EPA") required that the principle threat materials, which contained greater than 40,000 mg/kg lead, be excavated, and transported off-site to be stabilized and subsequently disposed off-site. This ESD modifies the cleanup of the principle threat materials, by allowing on-site stabilization, and placement beneath the on-site multi-layer cap. This ESD also modifies the cleanup from the off-site disposal and steam cleaning of building demolition debris to placement of the building demolition debris under the on-site multi-layer cap. As a point of clarification, the EPA will allow the on-site disposal of the following items stated in the ROD and this ESD: The Ball Mill Tailings Pile, The Aluminum Dross Pile, lead contaminated sediment from Jacks Creek (110 ppm and above), lead contaminated soils that prior to treatment had 40,000 ppm or above, soils and battery casings ranging from 1000 ppm to 40,000 ppm lead, concrete from building demolition, "Missouri River mud" if analytically similar to Site soil, and incidental debris from the subsurface providing it is no longer than 8 square feet if planar (less than 6 inches thick) or 8 cubic feet if non-planar. All above surface debris, drums, and vats, must be disposed of off-site appropriately. Grossly petroleum contaminated soil (100 ppm concentration determined by photo ionization detector screening and visibility on Site) must be treated appropriately according to PADEP underground storage tank regulations before being placed under the multi-layer cap. The third modification from the original ROD remedy changes the backfill of excavated areas to meet the original grade of the property to backfilling excavated areas to promote planned Site usage.

II. Summary of Site History, Contamination, and Selected Remedy

The approximately 105 acre Jacks Creek/Sitkin Smelting & Refining Inc. Site is located in the village of Maitland in a rural farming area of Mifflin County, Pennsylvania. The Site lies about five miles east of the Borough of Lewistown near the geographical center of the Commonwealth of Pennsylvania and is located at the border of Decatur and Derry Townships.

Land use at the Site is commercial/industrial and adjacent properties include residential land use. A total of thirteen buildings are present on the Site, many of which are dilapidated. The Site contains two separate waste piles, the Ball Mill Tailings Pile and the Aluminum Dross pile. A railroad track runs northeast-southwest through the central portion of the Site. Jacks Creek flows in a southwesterly direction down the valley meandering closer to the Northern ridge. Surface water from the Site drains northward to Jacks Creek, a tributary of the Juniata River. The creek is approximately twenty feet wide and two to three feet deep on average as it passes the Site.

The prior owner of the property, Sitkin Smelting Company, operated at the Site from 1958 until 1977, smelting non-ferrous metals. Sitkin's main products from the smelting operation were several types of brass and bronze ingots. Brass is an alloy of primarily copper and zinc, whereas bronze is an alloy of primarily copper and tin. Sitkin also operated a metal recycling operation that included aluminum, copper, and lead. Transformers and lead batteries were broken onsite and recycled for their lead content. Sitkin also operated a Precious Metals Building where precious metals (gold, platinum) were reclaimed from used products.

Sitkin closed in 1977 when it declared bankruptcy. There has been no smelting or refining activity onsite since 1977. Joseph Krentzman and Son Inc. currently operates a scrap yard and utilizes about half of the 105 acre Site for a scrap metal and aluminum recycling business employing approximately 85 people.

A Preliminary Assessment was done at the Site in March 1984, and a Site Investigation was performed in October 1985. The Site was proposed for inclusion on the National Priorities List (NPL) in June 1988, with final listing in October 1989.

Numerous removal actions have taken place on the Jacks Creek Site beginning in 1990. Several of the removal actions were designed as interim measures to both limit erosion of contaminated soils into Jacks Creek and to restrict site access. Erosion control measures included construction of diking, installation of riprap in runoff channels, and an attempt to revegetate flood plain areas with soil stabilizing grasses in May 1991. To limit the contaminants reaching Jacks Creek, a temporary cap was installed on the Ball Mill Tailings Pile, and several on-site lagoons were partially drained. An eight foot high chain link fence was installed around the eastern portion of the Site. Drums and other containers of bulk chemicals were over-packed, removed from the Precious Metals Building, and then disposed of at an off-site treatment facility.

An investigation and cleanup of onsite radioactive telegraph/teletype machine static eliminators was also conducted. This equipment was removed from piles of telegraph machinery and shipped off-site to a disposal facility. These removal actions were completed in January 1992.

Between 1990 and 1993, Gannett Fleming conducted a Remedial Investigation/Feasibility Study under the direction of EPA to identify the types, quantities, and locations and of contaminants and also to develop ways of addressing the contamination problems. As part of the RI, a number of samples, including air, water, soil, waste and even fish samples, were collected from different areas of the Site. An inventory of the Site and its buildings was performed, and a number of drums and vats were sampled.

The ROD for Jacks Creek was issued on September 30, 1997 and addressed the soils, sludge, waste piles, Jacks Creek, drums and vats, battery casings, and buildings. A complete description of the selected remedy as well as EPA's rationale for the decision is presented in the ROD. The major components of the selected remedy were:

- Excavation followed by off-site Treatment (stabilization) and disposal of soils with lead concentrations above 40,000 ppm which are the principle threat wastes.
- Excavation and Consolidation of waste pile materials and soils containing between 1,000 and 40,000 ppm lead. Sediments exceeding 110 ppm lead located in the immediate vicinity of the Site would be removed by vacuum dredging and also consolidated with the contaminated soils and waste pile material. The consolidation pile would be located outside the flood plain area of the Site, and would be on the portion of the Site that is not currently used.
- The consolidated waste pile materials, soils, and sediments would be covered with a multi-layer cap which would include a two inch limestone layer and then a multi layer cap consisting of a barrier layer, a drainage layer and a seeded topsoil layer. The barrier layer would be composed of a high density polyethylene geomembrane and the drainage layer would be consisted of six inches of sand. The topsoil layer would then be seeded in order to vegetate the entire consolidation area.
- Excavated areas would be restored with clean fill to the original grade and then seeded in order to revegetate all areas except for the scrap yard.
- Buildings onsite that are structurally unsound would be demolished. Debris from demolition would be steam cleaned and disposed off-site. The remaining buildings would be secured by installation of doors and locks.
- The drums and vats would be collected and then transported off-site for proper disposal

- The Institutional controls would be placed on Site to restrict use of the capped area, limit use of other areas of the Site to industrial activities, and prevent use of ground water from the Site.
- An eight foot high fence would be constructed on the northern side of the active scrap yard in order to completely fence the Site on all sides.
- Storm water controls would be installed to divert stormwater away from the capped area.
- Long-term monitoring of ground and surface water, as well as the fish and benthos in Jacks Creek, would also be conducted.
- Fish consumption advisories would be posted along Jacks Creek near the Site.
- Long term maintenance of the multi-layer cap, storm water controls, and fence would be conducted to ensure proper functioning of these components.

III. Description of the Significant Differences and the Basis for those Differences

This ESD modifies the selected remedy in the 1997 ROD from off-site treatment (stabilization) of principle threat soils, to on-site treatment (stabilization), with consolidation and placement beneath the on-site multi-layer cap. After the ROD was issued, as part of the Remedial Design activities at the Site, the PRP Group conducted extensive Pre-Design investigations at the Site. These investigations are summarized in the 30% Draft Remedial Design. The investigations indicated about 200,000 cubic yards of space was available under the cap for placement of waste materials. Site investigations to date indicate a volume of approximately 100,000 cubic yards of material which include soils with lead concentrations between 1,000 mg/kg and 40,000 mg/kg and sediments from Jack's Creek with average lead concentrations greater than 110 mg/kg. These materials are to be consolidated beneath an on-site multi-layer cap. Originally when the ROD was written, there was a concern about the volume under the cap but the Pre-Design investigations have indicated there is ample space to accommodate the 10,000 cubic yards of additional treated materials with concentrations greater than 40,000 mg/kg.

The modified remedy does not fundamentally alter the remedy selected in the ROD. Both the original ROD and modified remedy are protective of human health and the environment and provide an equivalent reduction in the potential for exposure by stabilizing, consolidating, and capping the contamination. Secondly, both alternatives comply with appropriate Chemical Specific Applicable or Relevant and Appropriate Requirements (ARARs) (groundwater, soil, sediment, surface water) and action specific ARARs (multi-layer cap and siting requirements, excavation, and hazardous waste generation). Additionally, both alternatives provide a permanent and long-term remedy by requiring regular and continuing maintenance of the overlying multi-layer cap. In regards to Reduction of Toxicity, Mobility, or Volume Through

Treatment both alternatives use stabilization to treat the principal threat waste and both the original remedy and modified remedy and consistent with the Superfund Program expectations [40 CFR 300.430 (a)(1)(iii)] to use treatment to address the principal threats posed by a Site wherever practicable.

Some of the advantages of the modified remedy are as follows. In regards to short term effectiveness, both alternatives pose an increased short-term health risk to on-site construction workers and/or trespassers during the implementation phase. This risk can be controlled and is similar in either case. To implement this portion of the remedy in the manner contemplated by the original ROD, the materials to be stabilized would need to be excavated, placed in a truck, and taken to an off-site hazardous waste treatment facility regulated under RCRA Subtitle C. An estimated 750 truckloads of hazardous materials would be transported from the Site to the treatment location, involving an estimated 250,000 - 630,000 truck miles of transportation effort. With the additional bulking of material resulting from the treatment, more than 750 truckloads of material would then need to be transported from the treatment facility to the ultimate disposal location. This further increases the risk with the added number of truck miles involved in handling of this hazardous material. The off-site stabilization/disposal alternative has an additional health risk associated with accidents involving the trucks that are transporting the material to the treatment facility and accidents exposing civilians to contaminated material. Considering this, the on-site stabilization/disposal remedy modification has a significant advantage over the ROD remedy with regard to this criterion.

As far as implementability, both alternatives utilize well known construction methods. Personnel and equipment required to implement either alternative are readily available. The construction time required for implementation of on-site stabilization/disposal is less than the time required for off-site stabilization/disposal. Further implementation of an on-site stabilization/disposal remedy will require less coordination with outside parties including trucking companies, local officials, treatment facilities, and disposal facilities. All operations associated with an on-site stabilization/disposal remedy would be done under the direct guidance of EPA. Thus, the proposed on-site stabilization/disposal remedy modification is preferable with regard to this criterion because the clean up would be completed in a quicker time period.

The cost of an on-site stabilization/disposal alternative is estimated at about \$400,000. The estimated cost in the original ROD for this remedy component was \$2,500,000. Thus, the on-site stabilization/disposal alternative has a clear significant advantage with regard to the cost-effectiveness criterion.

Members of the community commented at the last public meeting for this project, in 1997, that a remedy that would disturb the community the least (i.e., truck traffic) would be preferred. The on-site stabilization/disposal remedy requires the least amount of truck traffic of the two remedies (none) and thus has a considerable advantage with regards to not disrupting the community.

Some additional minor modifications in the ROD include placement of building demolition debris on site under a multi-media cap instead of steam cleaning the debris for off-site disposal. The placement of the building debris on site would be disposed at a much quicker rate than off site and would be much more cost effective and still be protective of human health and the environment. The off-site disposal of building debris has an additional health risk associated with accidents involving the trucks that are transporting the material to the treatment facility and accidents exposing civilians to contaminated material. The ROD estimated the cost of building demolition and disposal off-site to be approximately \$422,000. About 25%-30% of that cost was for off-site disposal, which is a cost saving of \$100,000 when the modified remedy is implemented. As a point of clarification, the EPA will allow the on-site disposal of the following items stated in the ROD and this ESD: The Ball Mill Tailings Pile, The Aluminum Dross Pile, lead contaminated sediment from Jacks Creek (110 ppm and above), lead contaminated soils that prior to treatment had 40,000 ppm or above, soils and battery casings ranging from 1000 ppm to 40,000 ppm lead, concrete from building demolition, "Missouri River mud" if analytically similar to Site soil, and incidental debris from the subsurface providing it is no larger than 8 square feet if planar (less than 6 inches thick) or 8 cubic feet if non-planar. All above surface debris, drums, and vats, must be disposed of off-site appropriately. Grossly petroleum contaminated soil (100 ppm concentration determined by photo ionization detector screening and visibility on Site) must be treated appropriately according to PADEP underground storage tank regulations before being placed under the multi-layer cap. The other additional change to the ROD is to change the original remedy from backfilling areas of excavation to the original grade to the backfilling excavated areas to promote planned Site usage. On the scrap yard portion of the Site, the areas excavated may not have to be backfilled to original grade because much of this area is covered by scrap metal. This area will be backfilled as necessary to maintain safety for the scrap yard workers and promote proper drainage.

IV. Support Agency Comments

All of the above changes to the remedy have been coordinated with representatives of PADEP. PADEP submitted letter on March 29, 2001 concurring with the changes to the selected remedy as described in this ESD.

V. Affirmation of the Statutory Determinations

EPA has determined that the revised remedy complies with the statutory requirements of CERCLA § 121, 42 U.S.C. § 9621. Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, complies with all Federal and State requirements that are applicable or relevant and appropriate to this remedial action as described in the ROD for this Site, and is cost-effective. In addition, the revised remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for this Site.

VII. Public Participation

This ESD and the supporting documents which contain the information which form the basis for modifying the selected remedies, have been included the Administrative Record for this Site, required by NCP Section 300.825 (a)(2). The Administrative Record is available for public review all the locations listed below:

East Derry Elementary School
RD #3
Lewistown, PA 17044

Mifflin County Library
123 North Wayne St.
Lewistown, PA 170441650

EPA Region III
6th Floor Docket Room
Arch Street
Philadelphia, PA 19103
(215) 814-3157

For more information about the Jacks Creek Superfund Site attend a public availability session, on Wednesday, April 25th at the East Derry Elementary School in Lewistown, PA. The Environmental Protection Agency (EPA) Representatives listed below will be on hand to provide information and respond to comments and questions on the ESD. All interested parties are invited to attend. Additionally, one of the EPA officials can be contacted below.

Rich Kuhn
Community Involvement Coordinator
3HS43
1650 Arch Street
Philadelphia, PA 19103
(215)814-3063
1-800-553-25069
kuhn.rich@epamail.epa.gov

Rashmi Mathur
Remedial Project Manager
3HS22
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5234
1-800-352-1973, Ext.45234
mathur.rashmi@epamail.epa.gov

4/19/01
Date


Abraham Ferdas, Director
Hazardous Site Cleanup Division



Pennsylvania Department of Environmental Protection

909 Emersion Avant
Harrisburg, PA 17110-8200
March 29, 2001

Southcentral Regional Office

717-705-4704
FAX 717-705-4930

Mr. Abraham Ferdas, Director, 3HS00
Hazardous Site Cleanup Division
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Explanation of Significant Differences
Jack's Creek/Sitkin Smelting Superfund Site
Derry/Decatur Townships, Mifflin County

Abe
Dear Mr. Ferdas:

The Explanation of Significant Differences (ESD) for the Jack's Creek/Sitkin Smelting Superfund Site, Derry/Decatur Townships, Mifflin County, Pennsylvania was received March 19, 2001. The Department of Environmental Protection (DEP) has reviewed it.

The significant changes to the September 30, 1997, Record of Decision (ROD) consists of the following:

- This ESD modifies the selected remedy in the 1997 ROD from off-site treatment (stabilization) of principal threat soils, to on-site treatment with consolidation and placement beneath the on-site multi-layer cap.
- Approved building demolition debris will also be placed under the multi-media cap instead of off-site disposal.
- Excavated areas will be backfilled to promote planned Site usage instead of backfilling areas of excavation to the original grade. On the scrap yard portion of the Site, the areas excavated may not have to be backfilled to original grade because much of this area is covered by scrap metal. This area will be backfilled as necessary to maintain safety for the scrap yard workers and promote proper drainage.

DEP hereby concurs with the EPA's proposed changes to the ROD with the following conditions:

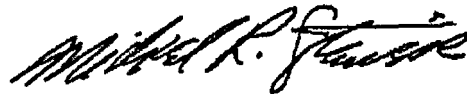
- EPA will assure that DEP is provided an opportunity to fully participate in any negotiations with responsible parties.

March 29, 2001

- DEP will be given the opportunity to review and comment on documents and decisions related to the design and implementation of the remedial action, to assure compliance with Pennsylvania Applicable or Relevant and Appropriate Requirements (ARARs).
- DEP's posture is that its design standards are ARARs pursuant to SARA Section 121, and we will reserve our right to enforce those design standards.
- DEP reserves its right and responsibility to take independent enforcement actions pursuant to the law.
- Any concurrence with the selected remedial action is not intended to provide any assurances pursuant to SARA Section 104 (c)(3).

Thank you for the opportunity to comment on this EPA Explanation of Significant Differences. If you have any questions regarding this matter, please contact me at 717-705-4704.

Sincerely,

A handwritten signature in black ink, appearing to read "Micheal R. Steiner". The signature is fluid and cursive, with the first name "Micheal" being more prominent.

Micheal R. Steiner
Regional Director

MRS/ALDP/baf